Figures 15 A and B depict an embodiment of an imaging coil 300 according to the present invention advantageous for evaluating the male urethra, the prostate, and the surrounding tissues. In these Figures, a flexible circuit antenna 304 is shown housed in a polymeric housing 318. In one embodiment, the housing 318 is provided with an oval lumen 320, shown in the cross-sectional view of Figure 15B taken at the line a-a' on Figure 15A. The orientation of the oval lumen 320 maintains the flexible circuit antenna 304 in a preselected orientation with respect to the patient's urethra and periurethral tissues. As has been previously described, the flexible circuit antenna 304 may include a copper trace etched on a flexible circuit that acts as the MR imaging coil. In one embodiment, the flexible circuit may be a single flexible circuit about 11 cm long. Also shown in Figure 15A are other components of an MR imaging system according to the present invention. In this embodiment, tuning-matching capacitors 308 may be soldered onto the proximal and distal end of the imaging coil circuit to adjust the output of the coil to 50 ohm impedance. The output impedance of the coil 300 is matched to 50 ohms at 63.9 MHz, understood to be the frequency of the signal generated by the hydrogen protons. Impedance matching at 63.9 MHz, performed in a physiological saline solution, is accomplished by using two sets of capacitors, one in series (capacitance = 75pF) in the other in parallel (capacitance = 351 pF). One or more capacitors can be used to achieve their acquired capacitance. The pads for the capacitors maybe etched on the proximal and distal part of the imaging loop flexible circuit 304. In one embodiment, "A" tape ceramic, non-magnetic, surface mount capacitors maybe used to match the output impedance to 50 ohms in a physiological saline solution at 63.9 MHz. The output from the tuning-matching circuit may be transmitted to the preamplifier (not shown) through a decoupling and a balun circuit. An active decoupling circuit for the depicted embodiment comprising a diode 310 may be built into the same flexible circuit to detune the coil during RF transmission by the MRI body coil, thereby to avoid decoupling artifacts in the images acquired and to prevent temperature increase in the area where the coil is positioned during clinical use. In one embodiment, the distal 5-20 cm of the imaging coil 300 may be inserted into the urethra. The remaining length of the coil 300 will remain external to the body. Located at the proximal end of the imaging coil 300 in the depicted embodiment may be a connector 314 such as a micro-BCN connector. This connector